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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/692,709	10/19/2000	Christian Gehrmann	45687-00036	7545

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EXAMINER

HOFFMAN, BRANDON S

ART UNIT	PAPER NUMBER
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2136

DATE MAILED: 04/15/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/692,709

Applicant(s)

GEHRMANN ET AL.

Examiner

Brandon Hoffman

Art Unit

2136

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☒ Claim(s) 2 and 6-16 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 October 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. ____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 3 and 4.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Specification

2. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

With regards to the abstract, the abstract should only be one paragraph.

Appropriate correction is required.

Claims 2 and 6-16 are objected to because of the following informalities:

- o Regarding claim 2, "the the" should be ~~the~~.
- o Regarding claims 6-16, these claims are dependent upon claim 2 and therefore inherit its deficiencies.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1, 3-6, 17, and 18 are rejected under 35 U.S.C. 102(b) as being anticipated by Merging and Extending the PGP and PEM Trust Models – The ICE-TEL Trust Model, Chadwick et al., May/June 1997 (hereinafter referred to as Chadwick et al.).

Regarding claims 1 and 17, Chadwick et al. teaches a method/ad hoc communication network for establishing security in an ad hoc communication network, the ad hoc communication network comprising:

- A set of communication nodes (fig. 2, pg. 20),
- At least two nodes of the set of communication nodes having a mutual trust relation and comprising a trust group (pg. 20, right column, first full paragraph),
 - The trust relations being created with public keys, and at least one additional node (fig. 4, pg. 22),
 - The at least one additional node being a candidate node for joining the trust group within the ad hoc communication network (pg. 22, left column, first paragraph),

- The nodes having authority to delegate trust to nodes of the set of communication nodes they trust (pg. 20, "Certification Path"),
- The method comprising the steps of:
 - Identifying a node of the set of communication nodes within the trust group having a trust relation with the candidate node (pg. 20, right column, "Cross Certification"), the node having the trust relation with the candidate node being an X-node; and
 - Distributing trust relations between all members in the trust group and the candidate node by means of the X-node (pg. 19, right column, last paragraph).

Regarding claim 2, Chadwick et al. teaches comprising, before the identifying step, the candidate node sending a message comprising a public key of the candidate node to all nodes of the set of communication nodes within the ad hoc communication network (pg. 20, left column, last paragraph).

Regarding claims 3-5, Chadwick et al. teaches wherein the ad hoc communication network comprises a single trust group and a single candidate node (fig. 1, pg. 18), and wherein the distributing step comprises the X-node sending a signed message comprising a list of nodes that the X-node trusts within the ad hoc communication network and all corresponding public keys to the candidate node (pg. 20, left column, first paragraph).

Regarding claims 6 and 18, Chadwick et al. teaches wherein the ad hoc communication network comprises a set of nodes comprising several trust groups (fig. 4, pg. 22), each of the set of nodes being candidates for joining all trust groups within the ad hoc communication network that the set of nodes are not already a member of (pg. 22, left column, second paragraph), the method comprising, after receiving the messages, each node of the set of nodes creating a list of candidate nodes that a given node of the set of nodes trusts and corresponding public keys (pg. 22, left column, first paragraph).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 7-16 and 19-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chadwick et al. in view of Morris et al. (U.S. Patent No. 6,691,173).

Regarding claims 7 and 19, Chadwick et al. teaches all the limitations of claims 1, 2, & 6, and 17, respectively, above. However, Chadwick et al. does not teach further comprising deciding one node within the ad hoc communication network to act as a server node.

Morris et al. teaches further comprising deciding one node within the ad hoc communication network to act as a server node (col. 4, lines 49-56).

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to combine further comprising deciding one node within the ad hoc communication network to act as a server node, as taught by Morris et al., to the method/network of Chadwick et al. It would have been obvious to one of ordinary skill in the art to combine deciding one node within the network to act as a server node, as taught by Morris et al., with the method/network of Chadwick et al. because the 'server' node can facilitate internetworking between two different trust groups.

Regarding claim 8, the combination of Chadwick et al. in view of Morris et al. teaches further comprising the server node receiving, from each other node within the ad hoc communication network, a message comprising a respective public key, a respective list of candidate nodes that the respective node trusts, and corresponding public keys (see col. 3, line 49 through col. 4, line 2 of Morris et al.).

Regarding claims 9 and 20, the combination of Chadwick et al. in view of Morris et al. teaches further comprising the server node classifying the at least one candidate node as being a server-trusted node or as being a server-untrusted node, depending on whether the server node trusts the at least one candidate node or not (see pg. 22, left column, second paragraph of Chadwick et al.).

Regarding claims 10 and 21, the combination of Chadwick et al. in view of Morris et al. teaches wherein the identifying step further comprises the server node identifying at least one Y-node required for distributing trust relations between the server node and at least one server-untrusted node (see col. 8, lines 23-37 of Morris et al.).

Regarding claims 11 and 22, the combination of Chadwick et al. in view of Morris et al. teaches wherein said distributing step further comprises sending, by the server node, of a request to the identified at least one Y-node to distribute said trust relations between the server node and the server-untrusted nodes (see col. 8, lines 38-45 of Morris et al.).

Regarding claim 12, the combination of Chadwick et al. in view of Morris et al. teaches wherein said distributing step further comprises obtaining, by the server node, of said requested trust relations (see col. 8, lines 45-49 of Morris et al.).

Regarding claim 13, the combination of Chadwick et al. in view of Morris et al. teaches wherein the step of obtaining the trust relations further comprises:

- Signing, by the Y-node, of the public key of the server node for each server-untrusted node that the Y-node has a trust relation with (see pg. 20, "Certification Path" of Chadwick et al.); and
- Forwarding, by the Y-node, of said signed public key to the server-untrusted node (see pg. 20, "Certification Path" of Chadwick et al.).

Regarding claim 14, the combination of Chadwick et al. in view of Morris et al. teaches wherein the step of obtaining the trust relations comprises:

- Signing, by the Y-node, of the public key of the server-untrusted node for each server-untrusted node that the Y-node has a trust relation with (see pg. 20, "Certification Path" of Chadwick et al.); and
- Forwarding, by the Y-node, of said signed public key to the server node (see pg. 20, "Certification Path" of Chadwick et al.).

Regarding claim 15, the combination of Chadwick et al. in view of Morris et al. teaches comprising the further step of, after obtaining said trust relation, reclassifying, by the server node, the server-untrusted node with the obtained trust relation as being a server-trusted node (see col. 8, lines 45-49 of Morris et al.).

Regarding claims 16 and 23, the combination of Chadwick et al. in view of Morris et al. teaches comprising the further step of sending, by the server node, of a signed message comprising the server node's trusted public keys belonging to trusted candidate nodes within the ad hoc communication network (see col. 4, lines 3-8 of Morris et al. and pg. 20, right column, "Cross Certification" of Chadwick et al.).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brandon Hoffman whose telephone number is 703-305-4662. The examiner can normally be reached on M-F 8:30 - 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz Sheikh can be reached on 703-305-9648. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

Branda Hoff

BH
4/12/04

Ayaz Sheikh
AYAZ SHEIKH
SUPERVISORY PATENT EXAMINER
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